

Decision No. 55122

**ORIGINAL**

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of  
CALIFORNIA ELECTRIC POWER COMPANY  
for approval of those certain agree-  
ments designated as Axis Station  
Agreement, Power Coordination Agree-  
ment, Amendment No. 1 to Power  
Coordination Agreement, and Power  
Transmission Agreement. )

) Application No. 38764

Donald J. Carman, for applicant.  
C. J. Deuel and Bert Buzzini, for California  
Farm Bureau Federation; Bruce Renwick and  
R. E. Woodbury, for Southern California  
Edison Company; James H. Carter, for  
Imperial Irrigation District; interested  
parties.  
John J. Doran, for the Commission staff.

O P I N I O N

Applicant's Request

The California Electric Power Company, engaged principally in the business of supplying electric energy to members of the public in portions of the Counties of Mono, Inyo, Kern, San Bernardino, and Riverside, in the State of California, and in the Counties of Nye and Esmeralda, in the State of Nevada, filed the above-entitled application on January 24, 1957, seeking an order of the Commission approving several agreements to provide additional power resources to meet the load growth expected in southeastern California and for a subsidiary company in Mexico, Industrial Electrica Mexicana, S.A. de C. V. (hereinafter sometimes called IEM). Copies of the several agreements are attached to the application and are designated and entitled as follows:

- Exhibit A - Axis Station Agreement
- Exhibit B - Power Coordination Agreement
- Exhibit C - Amendment No. 1 to Power Coordination Agreement
- Exhibit D - Power Transmission Agreement

Public Hearing

After due notice, public hearing on this application was held before Commissioner Ray E. Untereiner and Examiner Manley W. Edwards in El Centro on April 23, 1957. Applicant presented four exhibits and testimony by one witness in support of the application. The Commission staff, represented by an electrical engineer, took an active part in the hearing and cross-examined applicant's witness for the purpose of developing a full record to aid the Commission in deciding this matter. Counsel for the Southern California Edison Company and a representative of the California Farm Bureau Federation also cross-examined the witness. No party appeared in opposition to the proposed application; however, counsel for Edison did question the use of the Kaiser Steel Company's Eagle Mountain mining load as part of the reason for the proposed new power plant unit when the applicant already had used this load as part of the reason for justification of an additional unit at its San Bernardino steam plant.

Load Growth

Applicant represents that certain isolated portions of its system are served with energy that is purchased from other agencies; that these loads are growing rapidly; and that additional energy must be secured to serve them. These isolated portions are the Blythe area, the Kaiser Eagle Mountain Mine area, and the points in southeastern California and southwestern Arizona where power is sold at wholesale to IEM. None of these isolated portions is served directly from the applicant's main system.

The Blythe area is served with power received from Davis Dam under an exchange agreement with the United States

Air Force; currently, this load is approximately 11,000 kw and applicant estimates that it will grow to 29,000 kw in 1961. Included in this Blythe load is the Kaiser Eagle Mountain Mine which has been served with the applicant's portion of the Metropolitan Water District's unused firm energy from Hoover Dam through the District's Hoover transmission line at the Eagle Mountain pumping plant. At the present time applicant represents that its share of the District's unused energy is not sufficient to supply the Kaiser load and that it is buying the additional power needed to serve that load from the Southern California Edison Company on a month-to-month basis. Applicant states that it presently is building a 161 kv line from the Bureau of Reclamation's Blythe Substation to the Kaiser mine and expects this line to be in service around September 1, 1957.

Applicant states that IEM is served at three points just north of the international boundary line. One of these points is in the City of Calexico, another is near the City of Andrade and the third is at Boundary, just north of the City of San Luis, Sonora, Mexico. The energy for the deliveries at Calexico and Andrade is purchased from the Imperial Irrigation District, hereinafter sometimes referred to as IID, and the energy for delivery at Boundary comes from Davis Dam under the previously mentioned exchange agreement with the Air Force.

At Calexico the applicant has a contract which provides for 30,000 kw of power to be received from IID. The demand here was 29,520 kw in 1956 and applicant estimates it will grow to 42,500 kw in 1961. At Andrade the applicant has a contract which

provides for 10,000 kw of power to be received from IID. The demand at this location already has exceeded the 10,000 kw contract limitation and by 1961 applicant estimates it will grow to 44,500 kw. Excess loads at these two points will be taken care of through letter agreements with IID until supplemental power can be made available from the proposed Axis Power Station near Yuma, Arizona.

Applicant's Position

Applicant represents that because of the rapid and continuing growth of the above-mentioned sales, it is faced with the immediate necessity of either constructing new lines and facilities to interconnect these isolated portions of its system with the main system or of providing a new power source in the vicinity of the isolated portions to carry these loads. After giving consideration to various alternatives and procuring consulting engineering advice, the following plan is proposed by applicant as the most economical method to meet the expected load growth:

- a. Form a power pool in southeastern California and southwestern Arizona by and between the Arizona Public Service Company (hereinafter sometimes designated APS), the Imperial Irrigation District (hereinafter sometimes designated IID) and the applicant.
- b. Applicant and APS will cooperate in the construction and operation of a steam electric generating plant near Yuma, designated Yuma Axis Steam Plant. A plant site has been acquired and will be divided by an "Axis" line so that each company will hold title to one half of the site, the applicant owning the west half of the site. Ultimately, it is expected that four units will be constructed on this site with the applicant owning the two units on its side and APS the two units on its side.

- c. Units will be installed in the plant as load growth requires. After the first two units are installed in the Yuma Axis plant and additional power is needed in the pool, IID will construct a unit at some point in Imperial Valley. Subsequent units will be constructed at the Axis and Imperial Valley plants as required in order to meet continuing load growth.
- d. Construct the necessary transmission lines to tie the new plants into and interconnect the various systems to form the power pool.

Axis Station Agreement

The purpose of the Axis Station Agreement is to provide for the construction and operation of the Yuma Axis Steam Plant. The site acquired consists of about 80 acres located about 4 miles west of the City of Yuma in the State of Arizona. The initial unit, which is to be an 80,000 kw unit, will be installed by the applicant. Applicant states that engineering work is under way and construction will commence about September 9, 1957. Engineering services contract and a construction and procurement services contract have been placed with Bechtel Corporation. Applicant plans that the first unit be installed ready for commercial operation by April 1, 1959. The output of this first unit will go into the power pool and will be shared by APS, IID and the applicant.

Applicant expects the loads will grow to such an extent that a second unit at the Axis Plant will be required within three years after completion of the first unit and that the second unit will be provided by APS. When a third unit is needed in the pool, applicant anticipates that it will be constructed by IID at El Centro, California.

Applicant contemplates that the Yuma Axis Steam Plant will be operated as a single generation station so long as such operation is practicable and mutually satisfactory, and will be

operated by either APS or the applicant for the joint account of the parties. Initially APS will be the operator under policies and methods to be formulated by an Axis committee made up of two representatives of each of the parties.

Power Coordination Agreement

The Power Coordination Agreement provides for the inter-connection of the local systems of APS, IID and the applicant; cooperation in the future development of additional generating and transmission facilities; and the operation of the power pool, including participation in the use of capacity, the interchange of energy, and mutual emergency assistance.

Schedule A of this agreement provides for the interchange of energy, known as economy energy interchange, which can be supplied from sources available to the supplier that at the time are not fully utilized and that can be utilized by the receiver to reduce generation from more expensive units, to avoid starting generating units not in service, to avoid excessive transmission costs, to reduce or avoid more expensive energy purchases, and to avoid curtailing deliveries of secondary power. Generally speaking the energy interchange is to be supplied on a split-savings basis.

Schedule B of this agreement establishes a plan in accordance with which the parties may from time to time enter into agreements for temporary participation in the use and the cost of new installations of steam generating facilities in the local system of the parties, establishes conditions and terms for the use of reserve capacity and for reciprocal assistance among the parties under emergency power conditions when supply to customers is threatened or curtailed in any of the systems. With respect to

reserve capacity, the combined reserve margin of the three parties shall be a common pool available to any of the parties needed to offset capacity shortages in its local system arising from any cause.

Participation Agreement No. 1 of this agreement sets forth the terms and conditions under which AFS, IID and the applicant will participate in the use of capacity and in the annual costs of Unit No. 1 at the Yuma Axis Steam Plant. Under it participation percentages are determined for each party, and, as adjusted from time to time, are used for establishing entitlements to the output of Unit No. 1. In general, the parties share in the fixed charges in proportion to their respective entitlements and in the energy charges on a kwhr basis. Bills are to be rendered monthly by the applicant to AFS and IID for each party's respective share of the costs.

Amendment No. 1 to Power Coordination Agreement

Amendment No. 1 to the Power Coordination Agreement amends Service Schedule B to provide that the Kaiser Eagle Mountain Mine area lies within the applicant's local system, the effect of which is to increase the applicant's dependent load and thus increase its participation percentage in Unit No. 1, and amends Participation Agreement No. 1 by setting out therein the resulting change in participation percentages of all the parties.

Power Transmission Agreement

The Power Transmission Agreement, between IID and the applicant, provides for cooperation in the development, operation and use of the transmission facilities of both parties and the rendition of certain transmission services. Under this agreement,

IID will install facilities necessary to transfer power between the parties at its Pilot Knob and Drop 4 Substations and IID agrees that it will, upon request of CEP, reroute its existing 92 kv transmission line into the applicant's Garnet Substation and the applicant will install necessary terminal facilities.

In addition, the applicant will transmit IID's power from the Axis Plant to an interchange point in California, and IID will transmit power for the applicant from any interchange point in California to another, either directly or by way of substitution. For these mutual transmission services the applicant will pay to IID a net aggregate charge computed as provided in the agreement.

The transmission agreement also amends Article 5 of that certain Agreement for Exchange, Sale and Purchase of Energy, dated October 15, 1943, and approved by the Commission in Decision No. 36622. This article has since been amended by Supplemental Agreement dated April 27, 1950, and approved by the Commission in Decision No. 45485. The present amendment suspends the demand charge of \$2,500 per month provided for by said Article 5, as amended, during the term of this Power Transmission Agreement.

#### Plant Cost

Applicant estimates the total cost of Unit No. 1 in the Yuma Axis Steam Plant, including the common facilities, at \$13,000,000. Of this amount, APS will pay \$2,250,000 as its half of the land and common facilities, and the 69 kv switchyard and step-up transformer that it will supply for the first unit. The remaining portion, or \$10,750,000, will be paid by the applicant.



Applicant plans on financing this construction from temporary bank loans or from sale of such securities as the Commission may hereafter, upon proper application, from time to time authorize for that purpose.

Cost of Operation

For fuel the applicant plans on using natural gas which it expects to be available at all times. Oil will be kept on hand for emergencies in a 30,000 barrel tank. Also the plant will be constructed in such a manner that it can be converted to burn coal in the future, if that should become desirable. The gas will be purchased from APS, which company will obtain it from El Paso Natural Gas Company. Applicant estimates that at a 70 percent plant factor and at a fuel cost of 25 cents per million Btu the cost of energy delivered at the switchboard would be 6.9 mills per kwhr. If the fuel cost should go up to 30 cents per million Btu the cost would be 7.4 mills per kwhr. Such costs include a 6 percent return on the capital invested. Presently gas fuel costs about 25.8 cents per million Btu based on a rate of 27½ cents per licf to APS plus applicable taxes and a one percent handling charge.

Applicant represents that the estimated cost of power from the new plant compares very favorably with the cost of generating power at its Highgrove Steam Plant, and as anticipated at its new San Bernardino Steam Plant now under construction.

Advantages of Pool Operation

Applicant listed the following advantages to be gained from construction of the Axis plant and pool operation as opposed

to individual operation of separate plants:

1. The Yuma Axis Plant will be located within one and one half miles of a large delivery point and adjacent to the load center of the APS local system; hence the cost of new transmission lines is held to an absolute minimum.
2. Under the pool operation large size generating units will be constructed which will have better efficiencies at lower per kw capital costs than could be obtained from the smaller units required if separate noncooperative expansion plans were undertaken.
3. As the result of more efficient use of transmission lines throughout the entire system, all parties will save line losses in the form of kwhr.
4. Substantial labor and overhead savings will be realized as the Axis plant will be operated as a single station.
5. Savings will result from the pooling of spinning reserves as each party will not have to provide a separate reserve to protect its largest unit.
6. Gas rates are lower in Arizona than in California for steam-electric generating plant service.
7. Substantial savings should be realized through "economy energy" transactions in which the most efficient available generating unit of the three parties will be utilized.
8. The construction of the Axis plant and operation of the power pool in ten years' time should save the three participants an estimated \$18,000,000 as compared with the cost of each one of them building separate plants. Applicant expects to benefit to the extent of an estimated \$6,000,000 in ten years.

#### Findings and Conclusions

Applicant did not show the effect of its Axis Plant investment upon its estimated over-all rate of return, but justified it upon the basis of load growth and anticipated savings from pool operation. While normally the Commission requires a showing as to the effect on an applicant's earning position resulting from the

installation of a large generating unit, in this case it is not anticipated that the full cost burden of this unit will fall upon the applicant and it appears logical to conclude that the increased revenue resulting from load growth at the existing level of rates should carry the added capital and operating costs without unduly depressing the applicant's rate of return.

We have reviewed the several agreements upon which applicant requests approval and find that they are of indefinite term subject in most cases to termination on three years' notice or under other conditions as specified in the agreements and that they do not become effective until all necessary approvals of regulatory authorities have been obtained.

After considering the evidence of record the Commission finds and concludes that the proposed agreements, and construction contemplated thereby, provide an economic means for the applicant to meet anticipated load growth in southeastern California, that they are in the public interest, and that an order should be issued authorizing applicant to carry out the terms and conditions thereof. While the Edison Company has questioned the use of the Kaiser Eagle Mountain line load as a part of the justification for this new plant, in the Commission's opinion the other loads are growing so fast that the plant could be justified without such load if the Commission decides that this mine load should be served by Edison.

It is unusual for a utility, whose primary load is in California, to seek authorization to build production and transmission facilities outside of the state; however, we have precedent for such construction in Edison's and the applicant's transmission lines to Hoover Dam and the installation of machinery in the Hoover

Power Plant. In order to be sure that the construction proposed in this application will not burden the applicant's present California customers in the absence of an appropriate rate of return study, the applicant will be required to keep its records in such manner that the costs of serving the Blythe area load, Eagle Mountain Mine, and Mexican load can be separated from the costs of serving its remaining California load.

The Commission finds that public convenience and necessity require the construction, operation and maintenance of the applicant's portion of the proposed Yuma Axis Steam Plant, and the proposed first unit therein of 80,000 kw capacity, together with the necessary appurtenances and the short transmission lines to tie the plant to the Pilot Knob Substation, and that an order should be issued granting a certificate of public convenience and necessity.

The certificate of public convenience and necessity issued herein is subject to the following provision of law:

The Commission shall have no power to authorize the capitalization of this certificate of public convenience and necessity or the right to own, operate or enjoy such certificate of public convenience and necessity in excess of the amount (exclusive of any tax or annual charge) actually paid to the State as the consideration for the issuance of such certificate of public convenience and necessity or right.

O R D E R

The above-entitled application having been considered, a public hearing having been held, the matter having been submitted, and now being ready for decision; therefore,

IT IS HEREBY ORDERED that applicant be and it is authorized to carry out the terms and conditions of the following contracts:

<u>Entitled</u>	<u>Dated</u>	<u>With</u>
Axis Station Agreement	December 4, 1956	Arizona Public Service Company
Power Coordination Agreement	December 4, 1956	Imperial Irrigation District and Arizona Public Service Company
Amendment No. 1 to Power Coordination Agreement	January 15, 1957	Imperial Irrigation District and Arizona Public Service Company
Power Transmission Agreement	December 4, 1956	Imperial Irrigation District

and to perform or render the services described in these contracts under the terms, charges and conditions stated in them.

IT IS HEREBY FURTHER ORDERED that:

1. California Electric Power Company be and it is hereby granted a certificate that public convenience and necessity require the construction, operation, maintenance and use of the proposed Unit No. 1 at the Yuma Axis Steam Plant consisting of an 80,000 kw unit, appurtenances and short transmission lines generally as described in the application, the procurement of the requisite lands or land rights, permissions or such franchises as may be necessary for the construction or operation of the project, the production, transmission and distribution, delivery and sale of such electric energy as may be generated by this unit to its present and prospective customers in accordance with its certificates of public convenience and necessity and with its rates and rules duly filed with the Commission.

2. Applicant shall file with the Commission within thirty days after the effective date of this order, two certified copies

of the contracts as executed, together with a statement of the dates upon which the contracts are deemed to have become effective.

3. Applicant shall notify this Commission in writing of the dates of termination of each and every one of said contracts within thirty days from and after said termination dates.

4. Applicant shall segregate its capital investment and operating expenses involved in these contracts from the remainder of the system, and maintain records in such manner as will enable rate of return studies to be prepared separately, covering the loads and services involved in these several contracts.

The effective date of this order shall be twenty days after the date hereof.

Dated at San Francisco, California, this 11<sup>th</sup> day of JUNE, 1957.

Robert E. Mitchell  
President  
Robert L. Terrell  
William J. Pool  
R. H. Hertz

Commissioners

Commissioner C. Lyn Fox, being necessarily absent, did not participate in the disposition of this proceeding.